

**Africa International Journal of Management Education and Governance
(AIJMEG) 1(2): 44-54**

© Oasis International Consulting Journals, 2016 (ISSN: 2518-0827)

**THE SUCCESS AND FAILURES OF ICT GOVERNANCE IN ENTERPRISES
CASE OF MACHAKOS COUNTY**

BY MR. JAMES NAMBUSI MAKHULO

PHD STUDENT (Information Systems) KISII UNIVERSITY -KENYA, maknab2012@gmail.com, 0722 23 33 52

Received in 23rd June 2016

Received in Revised Form on 26th July 2016

Accepted on 4th August 2016

Abstract

Most enterprises are struggling with risky surroundings and constant technological changes in order to achieve the highly expected results. ICT governance considers many types of technologies touching on various areas of interest in enterprises. A number of times we hear of negative and positive happenings in organisations due to failure or success of ICT of which the blame or praises go to ICT management or system being used and not the governance of the ICT in place. The key agenda of ICT governance include the assurance that there are positive returns on ICT investments, tone down the risks that are associated with ICT among others; Governance plays the big role and not the management. Governance being about who makes decisions unlike management which is about making and implementing the decisions. This presentation about the ICT governance; what contributes to the success of ICT governance and its possible failures that make the system in the enterprise not to achieve its objectives. It looks at the issues that contribute to effective / sustainable and ineffective / non-sustainable ICT governance in an enterprise. It identifies the areas that need to be focused on and the best practices to make it a success and not a failure. The importance of stakeholders and the role some of them play to make it a success and what happens if they do not participate since ICT governance is not something that occurs in IT department of an organisation but rather defines governance of ICT as a responsibility of directors of the entire organisation among others. This will enable enterprises to assess their ICT structures and directing the plans for its use and prioritize IT areas that need improvement what in the end can lead to increase in their effectiveness and results.

Keywords: *ICT Governance, management, structures, effectiveness, enterprise.*

Introduction

Information Communication Technology (ICT) is the technology that merges computing with high speed communication links carrying data, sound and video and facilitates manipulation and dissemination of the results. It is an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems among others. Governance being "Providing the structure for determining organizational objectives and monitoring performance to ensure that objectives are obtained", ICT Governance, is a subset discipline of Corporate Governance focused on ICT systems and their performance and risk management (National Computing Center, 2005).

It describes the rules and procedures for making and monitoring decisions on strategic ICT concerns and also describes how persons entrusted with governance of an entity will consider ICT in their supervision, monitoring, control and direction of the entity. The discipline of ICT governance covers a particularly broad group of technologies of particular interest to governments and other bodies.

The Australian Standard (AS) for Corporate Governance of Information and Communication Technology (ICT), AS8015, defines Corporate Governance of ICT as *"The system by which the current and future use of ICT is directed and controlled. It involves evaluating and directing the plans for the use of ICT to support the organisation and monitoring this use to achieve plans. It includes the strategy and policies for using ICT within an organisation."* AS8015 stepped away from the idea that IT or ICT Governance is something that occurs in the IT Department of an organisation but rather defines the governance of ICT as a responsibility of the Directors of an organisation, in the same way that other resources such as human resources and finance are.

However, a clear difference must be made between IT governance and IT management. IT management is focused on daily effective and efficient supply of IT services and IT operations. IT governance, in turn, is much broader and concentrates on performing and transforming IT to meet present and future demands of the business and the business' customers

Governance ensures that stakeholders needs, conditions and options are evaluated to determine balanced, agreed-on enterprise objectives to be achieved; setting direction through prioritisation and decision making; and monitoring performance and compliance against agreed-on direction and objectives (EDM). Management plans, builds, runs and monitors activities in alignment with the direction set by the governance body to achieve the enterprise objectives (PBRM).

Enterprise governance drives IT governance and enterprise governance is about:

- *Conformance; adhering to legislation, internal policies, audit requirements, etc.*
- *Performance; Improving profitability, efficiency, effectiveness, growth, etc.*

Enterprise governance and IT governance require a balance between conformance and performance goals directed by the board.

Back Ground

Machakos County is an administrative County in the eastern part of Kenya (formerly eastern province). The County has constituencies which are; Machakos Town, Masinga, Yatta, Kangundo, Matungulu, Kathiani, Mavoko and Mwala. The County covers 6,208 square kms and has a population of 1,098,584 as per 2009 census (Male - 49 %, Female - 51 %); with an age distribution of 0 to 14 years at 39%, 15 to 64 years 56% and 5% above 65 years. Its population annual Growth Rate is 1.7 % with a current estimate of 264,500 households of which only 17% accessing electricity. Its capital town Machakos is cosmopolitan and is located 64 km southeast of Nairobi. 52% of the population lives in the urban centers, which is way above the national average of 29.9% with a good number of this getting basic education and computer literacy. (Machakos Strategic plan, 2015).

Machakos County has been known to be the most performing county in development, revenue collection and ICT growth especially with the introduction of Konza city as an ICT hub puts the county on a monitoring radar and envy of many other counties.

For this reason the county has to decide measures which it has to implement in everyday business activities with the aim of improving its ICT governance and reducing IT risk.

The study used qualitative methods, which combined literature review, and semi-structured interviews which were conducted with various categories of stakeholders: government representatives, developers of ICT tools for governance, and users.

According to Peppard and Ward (2004) IT is nowadays used as business transformer and factor that can increase organizational value. Different authors have tried to identify and quantify elements of adequate IT governance. Weill and Ross (2004) allege that structure of decision making process, process compliance and access to communication are key elements while Sohal and Fitzpatrick (2002) notice that IT steering committee, centralization of IT decision making process and inclusion of higher level management in decisions regarding IT brings success to IT governance. Vaswani (2002) confirms positive relation between IT governance and existence of IT steering committee,

inclusion of higher level management in decisions regarding IT and performance measurement system.

ICT Governance

IT governance implies that IT processes are fully integrated into life cycle of business process and it influences on quality of service and business agility (Spremić, 2009, pp. 906). Van Grembergen and De Haes (2005) defined IT Governance as the organizational capacity exercised by the Board, executive management and IT management to control the formulation and implementation of IT strategy and in this way ensure the fusion of business and IT. The primary focal point of IT governance is on the responsibility of the board and executive management to control formulation and the implementation of IT strategy, to ensure the alignment of IT and business, to identify metrics for measuring business value of IT and to manage IT risks in a successful way; the reason why Machakos county found it necessary to involve “all” stakeholders in their ICT setup.

The primary goals for information technology governance are to:

- i. assure that the investments in IT generate business value
- ii. Mitigate the risks that are associated with IT.

This can be done by implementing an organizational structure with well-defined roles for the responsibility

of information, business processes, applications, infrastructure, etc. They affirm that ICT governance is about who makes decisions while management is about making and implementing the decisions. They assert that effective ICT governance will answer three questions:

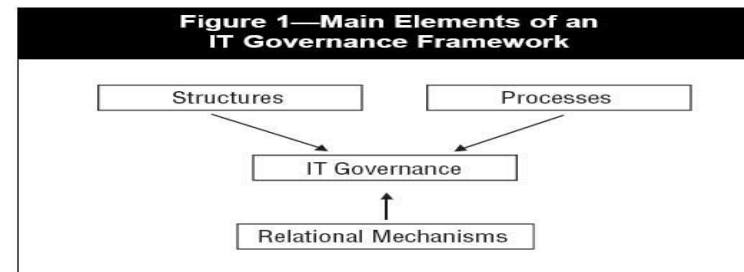
What decisions must be made?

Who should make these decisions?

How are they made and monitored?

ICT Governance Framework

To implement IT governance in practice, an IT governance framework can be deployed composed of a mixture of various structures, processes and relational mechanisms.



Source: National Computing centre

Structures involve the existence of responsible functions, such as IT executives and accounts, and a diversity of IT committees, dealing with acquisition

and implementation process; which starts from the Governors level, county ministries and the directors in various ministries. For example the Minister of ICT has support team headed by ICT director based in Machakos town with the deputy with senior ICT managers and ICT officers spread in various sub counties (specifically in Machakos, Mavoko and Mwala) who work hand in hand with other departments under various ministries.

Processes refer to strategic IT decision-making and monitoring such as strategic information systems planning.

With a centralized IFMIS system at Machakos town several revenue collection operations have been automated enhancing the revenue collection.

The relational mechanisms include business/IT participation and partnerships, strategic dialogue and shared learning. It is important to recognise that designing of IT governance is contingent upon a variety of at times conflicting internal and external factors and therefore, determining the right mechanisms is a complex endeavor and what works for one entity does not automatically work for another, even if they work in the same area.

Effective ICT governance includes processes by which key decisions are made about IT investments. Similarly, IT project success depends on effective,

ongoing communication across all levels of government.

The purpose of ICT governance framework is to ensure that IT projects:

- have well defined objectives within an accountability framework;
- be approved in accordance with project approval requirements as set out in the organisation;
- employ sound project management principles;
- be adequately resourced by organisations management;
- have a comprehensive and coordinated definition of the overall scope of the project(s);
- are managed in a manner sensitive to risk, complexity and economy of resources; and
- are appropriately measured and reported to ensure accountability for outcomes and provide lessons learned for other IT projects.

The IT Governance Framework defines the county's policy for the management and monitoring of large and medium scale IT projects and or functions. It spans the culture, organisation, policy and practices that provide for IT management and control across five key areas which include:

Alignment – Provide for strategic direction of IT and the alignment of IT and the business with respect to services and projects.

Value Delivery – Confirm that the IT/Business organisation is designed to drive maximum business value from IT. Oversee the delivery of value by IT to the business, and assess Return On Investment.

Risk Management – Ascertain that processes are in place to ensure that risks have been adequately managed. Include assessment of the risk aspects of IT investments.

Resource Management – Provide high-level direction for sourcing and use of IT resources. Oversee the aggregate funding of IT at county level. Ensure there is an adequate IT capability and infrastructure to support current and expected future business requirements.

Performance Measurement – Verify strategic compliance, i.e. achievement of strategic IT objectives. Review the measurement of IT performance and the contribution of IT to the business (i.e. delivery of promised business value).

It is important to note that IT Governance is not a one-time exercise or something achieved by a mandate or setting of rules. It requires time and proper planning. The expected results of the governance framework are that:

- IT projects will deliver value for money;
- Sound stewardship of project funds is demonstrated;
- Accountability for project outcomes is transparent;

- Outcomes are achieved within time and cost constraints; and
- IT projects deliver intended results.

Findings on Causes of Failures

ICTs are often seen as a catalyst for democratic processes, freedom of speech and fraud solution, while e-governance has been said to have the potential to establish an environment for improved service delivery, increased transparency and accountability (OECD 2003; Ndou, 2004; Dawes, 2008; Klopp *et al.*, 2013). However, e-governance and many ICT projects in governance result in lower expected returns especially in developing/ transitional countries where 35% of e-governance related projects are likely to fail (Heeks, 2003), like the case of Machakos County; this failure is attributed to, among other factors, the design-reality gap. The design-reality gap is a physical and cultural one between project design and realities on the ground where implementation occurs (Heeks, 2002).

High expectations of the County executive has been dwindling due to lack of good will from other quotas on the ground that feel unsafe due to malpractices that have been going on before devolution. Bringing together all stake holders from revenue collection, procurement and lands has seen a clear gap created as some people aren't willing to provide information to

ICT team which may hatch the corruption dealings among county officers.

Other factors that lead to the failure of ICT projects in governance and e-governance involve political control of ICT infrastructure. This is also supported by (Heeks, 2002). Limited penetration into County functions, lack of strategies and local policies applied, the high cost for end users and low financial resources availability especially from central government considering the fact that the Counties have just been setup with problematic structures and a load of issue to put in place, poor IT skills – limited skilled personnel, low usability and political will are often described as reasons for the failure to realize the full potential of ICT. The political “muscles” being reflexed by various leaders who feel being left out from the “eating” team (read corruption) will fight any implementation and even acquisition of the technological facilities to enhance monitoring and performance within the sub counties. Limited finances from central government and non-performing sub counties (in terms of low revenue collection), over employment leading to high wage bill especially having none skilled staff who are employed through “god fathers” makes resources not to be available for proper implementation to take place or delayed.

The absence of government strategies to harmonize local, regional and continental ICT networks and

policies (Gillwald, 2010; Waema, 2011) is complemented with a shortage of technological training and capacity, as well as public officials’ resistance to change and technology. Case witnessed by (Thomas *et al*, 2010). No ICT policy put in place and incomplete ICT strategy making governance difficult to implement and even monitor where partially implemented.

The above among others can be summarized by the following symptoms of ineffective governance that one needs to look out for and do their best to avoid.

1. Senior management senses low value from investments made in IT. They frequently don’t even think of them as investment but simply costs.
2. IT is often a barrier to implementing new strategies. Instead of being a strategic enabler, it limits the ability to respond to new opportunities.
3. The IT decision-making mechanisms are slow or contradictory (or both).
4. The inability to explain how IT is governed in an organization – especially senior management’s ability to explain it. If it can’t be explained how can it be followed? If < 50% of managers in leadership positions can accurately describe IT governance and the number is not increasing monthly, governance is a problem.

5. Some of the more conservative studies have shown that < ½ of IT projects complete on time and on budget. Good project management is part of good IT governance.
6. Some outsourcing decisions result simply from frustration with IT. If this is seen as a quick fix solution, it suggests that governance is a problem.
7. Governance should change Infrequently, only when a change in strategy prompts a change in desired behaviors. (National Computing Centre, 2005)

Practices of Effective ICT Governance

According to Kearney (2008) the following are the habits of highly effective ICT governance *that need to be embraced by Machakos county stake holders*

- 1.IT is viewed as a strategic business asset and managed as a portfolio. ICT assets and investments are evaluated in a portfolio management approach, recognizing the value and risks of different ICT assets.
- 2.Technology ignorance is not accepted. ICT participates in technology investment decisions. ICT executives are held to the same high standards as other business functions - they manage technology innovation and adoption to optimize business value.
- 3.ICT has board of director-level oversight and

clear executive leadership. Members of the board and executive committee direct and understand major ICT investments, ICT's operational role and impact on business continuity, and IT performance compared to peers.

4. There is no "one-size-fits-all" ICT governance model

The IT governance is tailored to align with the company's unique strategy and organisation structures; this is critical to overall IT effectiveness

- 5.ICT is an essential part of corporate planning and strategy.

IT has a seat at the corporate planning table, demonstrating a keen understanding of a broad range of business issues and providing creative and cost-effective solutions.

- 6.ICT plays an active leadership role in transformation and innovation. Given its involvement in all aspects of a business, ICT has a unique vantage point to steer innovation within business operations, and shares this role with other business functions.

- 7.ICT's impact on the business is measured and monitored.

ICT's vital role in the business necessitates monitoring and measuring IT performance on multiple levels – including benchmarking

competitors – to detect industry and market trends.

Successes and problems in Machakos County arise due to partially putting the above into practice.

There is concentration on ICT management – introduction of Fleet management for sand ferrying trucks that have been organized into SACCO's easy follow up and payments. But failure in ensuring that kiosks remittance of levies – no clear strategy for measuring the success of this processes as there no monitoring system for performance of the fleet management and kiosk levy collection as fake receipts are still being generated and direct cash payments are still being made to county officials lower in returns. Technophobia by some staff and suspicion nature of ICT management staff and introduction of new projects – this makes it had to embrace not only ICT governance by none ICT departments/units.

The Leadership need to embrace ICT governance as it plays an active role in transformation and innovation as its part of corporate planning and strategy which opens up a wider range of functions that Machakos County envisage.

Leadership need to be involved in ICT acquisition and also in implementation and not fighting and halting implementation process which some fear may unhide unscrupulous activities.

Conclusion and Recommendations

It is important to have a complete implementation of ICT governance as it facilitates compliance with regulations, Competitive advantage to an entity, Support of enterprise goals, Growth and innovation, Increase in intangible assets, Reduction of risk, IT Costs / Business value, New business models, Business risk, Dependence on other entities, Essential business knowledge, for entity/ Business's reputation

It is recommended that Machakos county should; treat IT governance initiatives as a project not a 'one-off' step. The goal is to make governance to be a common or routine aspect of their business i.e. makes governance to be "business as usual". Obtain top management buy-in and ownership. This needs to be based on the principles of best managing the IT investment.

Not forgetting that implementation involves cultural change as well as new processes. Make sure that the leadership enable and motivate the changes. Manage expectations; in most enterprises, achieving successful oversight of IT takes some time and will involve continuous improvement.

Reference

Heeks, R. (2002b). "Information Systems and Developing Countries: Failure, Success, and Local Improvisations." *The Information Society* 18: 101-112.

Heeks, R. (2003). "Most eGovernment-for-development projects fail: how can risks be reduced?" iGovernment Working Paper Series. IDPM, University of Manchester, UK.

Heeks, R.. 2002a. "e-Government in Africa: Promise and practice." *Information Polity* 7(2/3):97-114.

International Journal of Production Economics, 75(1), 97-112.

IT Governance

Klopp, J. M., Marcello, E. M., Kirui, G., & Mwangi, H. (2013). Negotiating e-politics: Initiating e-government in a municipal council in Kenya. *Information Polity*, 18(1), 21-42.

Kolstad, I. & Wiig A. (2009) "Is Transparency the Key to Reducing Corruption in Resource-Rich Countries?" *World Development* 37 (3): 521–532.

Livingston, S. (2011). Africa's Evolving Infosystems: A Pathway to Security and Stability (p.57). Africa Center for Strategic Studies.

National Computing Centre ICT Governance Developing a successful governance strategy, A Best practice guide for decision makers in IT; (2005); M1 7ED, Manchester

Olugbenga, A. (2001). Governance in Africa: The Role for Information and Communication Technologies. The Knowledge Network Center. Published by

Oxford House, Oxford Road

Retrieved on 10th June 2016 <http://www.atkearney.com>

Retrieved on 10th June 2016
<http://www.machakosgovernment.com/NewsfromMachakosGovernment.aspx?NewsID=138>

Retieved on 10th June 2016
<http://www.kenyampya.com/userfiles/file/Machakos%20Strategic%20Plan%20Draft.pdf>

Spremić, M. (2009). IT Governance Mechanisms in Managing IT Business Value, *WSEAS the Balanced Scorecard, Information System Control Journal*, 2.

UNDP, United Nations Development Programme. 2006. Definition of basic concepts and terminologies in governance and public administration Note by the Secretariat*.

Available from
<http://unpan1.un.org/intradoc/groups/public/documents/un/unpan022332.pdf>

Van Grembergen, W., De Haes, S., (2005). Measuring and Improving IT Governance Through

Vaswani, R. (2002). IT Governance and management in Australian large companies,

Weill, P., Ross, J. W. (2004). *IT Governance: How Top Performers Manage IT Decision Rights*